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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/522,233

08/18/2005

Thilo Dollase

101769-296-WCG

1649

27386

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11/25/2008

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EXAMINER

MULLIS, JEFFREY C

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/522,233 | Applicant(s) DOLLASE ET AL. | |
| | Examiner Jeffrey C. Mullis | Art Unit 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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With re to the characteristic that P(B) has a refractive index of greater than or equal to 1.43, Takashi, 20040249073 discloses in paragraph 87 that refractive index of a polymer can be derived from that of the monomers and that styrene, methyl methacrylate, n-butyl acrylate and butadiene have refractive indices of 1.595, 1.494, 1.463 and 1.518 respectively. Aoyama, (US 6,383,620) discloses in column 4, lines 35-39 that a wide range of polymers have refractive indices of 1.48 or greater and implies that fluorination is needed for lower refractive indices. Therefore it can reasonably be concluded that any non fluorinated alkyl acrylate polymer block would meet applicants limitation that refractive index is greater than or equal to 1.43.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Everaerts et al. (US 2004/0202881).

The reference discloses pressure sensitive adhesives which include coupled diblock copolymers of polystyrene and polybutyl acrylate. Note Example 6 and Table 4 disclosing that run "6A" contains 2.7 diblock arms. Since a whole number of arms are coupled in each molecule at least some two arm coupled (i.e. linear triblock material) material would be present and a distribution of coupling would also imply some uncoupled, (i.e. free diblock) material would be present. Example 6B would similarly be expected to contain some triblock copolymer. In any case note paragraph 108 for addition of diblock copolymer as additive to facilitate processability. Note that applicants specification discloses polystyrene terminal blocks in the examples and paragraph 30 of applicants published specification discloses that polybutyl acrylate (converted to isooctyl acrylate which presumably has a similar refractive index to butyl acrylate due to the similarity in structure) may be used as applicants "B" block. Applicants and patentees characteristics are therefore presumably inherently identical. While possibly the block copolymer of Example 6 alone does not have enough styrene to meet applicants' limitation that the adhesive has a refractive index of 1.52, note paragraph 190 where the block copolymers are mixed at a level of 50% with aromatic tackifiers (i.e. high refractive index materials).

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Everaerts, cited above.

Everaerts discloses use of isobornyl acrylate in paragraph 70 and ethyl hexyl acrylate in paragraph 81 and discloses that some "A" block monomer may be present in the "B" block (though admittedly not preferably).

Applicants elected species is not discloses and arguably applicants refractive index is not inherent in the adhesive of Evaerts and arguably no diblock copolymer is present in Everaerts Examples. However choice of applicants components from the reference would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention in the expectation of adequate results absent any showing of surprising or unexpected results.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Husemann et al. (DE 10036804).

It is note that DE '803 corresponds to US 2003/0190467) and since the US document is in English, reference will be made to the pregrant publication.

Husemann discloses an adhesive triblock composition which includes a polystyrene-(ethylhexylacrylate/isoprene)-polystyrene block copolymer and tackifier (Example 2.12). With regard to claim 5, no chemical reaction is 100% efficient and claim 5 provides no lower limit on the amount of diblock copolymer and hence even a miniscule amount of diblock copolymer generated due to failure to reinitiate one of the polystyrene terminals would read on claim 5

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Husemann et al., cited above in view of Everaerts.

Arguably the refractive index of Husemans adhesive commotion does not fall into applicants range and arguably no diblock copolymer is present.

Note that Husemann discloses use of (high refractive index) aromatic monomers at paragraphs 34-36.

Choice of high refractive index monomers from Husemann would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention in the expectations of adequate results absent any showing of surprising or unexpected

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results. It would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to add diblock to the composition of the primary reference as taught by the secondary reference in order to increase processability as taught by the secondary reference absent any showing of surprising or unexpected results. Addition of aromatic tackifiers (high refractive index materials) would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention as taught by the secondary reference in the expectation of increasing tack as compared to compositions without tackifiers absent any showing of surprising or unexpected results.

Applicant's arguments filed 8-8-08 have been fully considered but they are not persuasive. With regard to applicant's discussion of MPEP 2112.01 there are no differences between the claims and prior art except for characteristics and therefore shifting the burden of proof to applicants to show that the characteristics are not present is appropriate. The examiner has no objections to applicant's attempts to define their product by use of characteristics but nonetheless the claims must define a patentable invention. The court in DuPont held that burden was on the challenger of the DuPont patent to show that a characteristic was not present and DuPont had previously submitted a declaration indicating that they could not be assumed to be present. Such is not the fact situation in the instant case. Takashi discloses an equation for calculating refractive indices of polymers based solely on the refractive indices of the monomers and thus implies no substantial effect due to structural differences arising from polymerization method. Furthermore the adhesive of Evaerts contains aromatic (tackifying) materials and as aromatic materials are known to have high refractive

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indices, the refractive index required by applicants claims for their block copolymer more than reasonably appears to be inherently possessed by the prior art. There is nothing in the prior art cited by applicants indicating that Takashis' method for calculating polymer refractive index is invalid and that the polymers obtained by the prior art are in substantial disagreement with Takashis' calculation method.

Furthermore, a US patent has the presumption of validity and therefore it is assumed that Takashis' disclosure (now patented) is accurate. There is also nothing in applicants disclosure contrary to the examiner's position regarding inherency of applicants characteristics in the prior art as the published instant specification at paragraph 17 only discloses that a method should be used capable of producing block copolymers (as the prior art uses) and choice of monomers (the prior art chooses monomers having refractive indices in the range required for applicants blocks). The specific refractive indices of the specific monomers of the prior art are known as set out above and any statement in '166 that refractive indices of prior art polymers are "typically" outside of applicants range is not contradictory to the examiners position absent evidence regarding the specific block copolymers of the art relied upon. In fact the art relied upon does not even appear to have been public at the time of the invention of '166. With regard to the issue of whether it would have been obvious to add aromatic tackifiers to Husemanns' completion, the secondary reference discloses that such addition increases tack, a benefit in adhesives and hence there is ample motivation to add such materials to increase tack. In any case as set out above Evaerts provides specific Examples using aromatic tackifiers and for at least this reason anticipates the claims

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

Jeffrey C. Mullis
Primary Examiner
Art Unit 1796

JCM

11-20-08

/Jeffrey C. Mullis/

Primary Examiner, Art Unit 1796

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